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U.S. Department of Agriculture.  
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*Spring of 1901*

*Catalogue*

*of*

*Strawberry  
Plants*

*Also*

*Gladiolus  
Bulbs*

*M. Crawford Company*

*Cuyahoga Falls, Ohio*



**OHIO AGRICULTURAL EXPERIMENT STATION**  
(Department of Nursery and Orchard Inspection.)

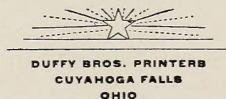
No. 105.

WOOSTER, OHIO, Sept. 6, 1900.

This is to certify that the growing nursery stock and premises of the M. Crawford Company, situated at Cuyahoga Falls, Summit County, have been inspected by authority of an act passed by the General Assembly of the State of Ohio, April 14, 1900, and that no indications have been found of the presence of San Jose scale, Black knot, Peach yellows, or other dangerously injurious insects or plant diseases on such stock or premises.

This certificate is void after August 15, 1901.

F. M. WEBSTER,  
*Chief Inspector.*



# To Our Customers



Again it becomes our pleasant duty to acknowledge our indebtedness to those who have favored us with their patronage. We trust that those who have sent us orders have received such treatment as to warrant them in continuing to deal with us. From others into whose hands this catalogue may come, we respectfully solicit trial orders, satisfied that we shall be able to hold their trade when once we have secured it.

This year we are able to offer a larger stock of plants than ever before. Our plantings of last spring were made on a new place, a rich farm on which strawberry plants have never been grown before. Its adaptation to this purpose has been demonstrated to us by the results of the past season, for we never had plants go into winter quarters more free from every sign of weakness or disease. The change in location resulted in our failing to get planted a few varieties which we desired to have represented in this catalogue, but we still have enough excellent kinds to satisfy almost anybody.

**ORDERING** ✂ Our customers will find it much to their advantage to order early and to have their plants shipped early. Those who order early will get what they want, while late comers are frequently disappointed in finding that some varieties are sold out. Early in the season plants are dormant and will stand digging and shipping much better than after growth has started. Plants are also lighter and express charges are less. If you cannot set the plants when they arrive, heel them in, that is, plant them a few inches apart in a temporary bed; they can then be transplanted, with the earth adhering, with scarcely any damage. In this way the plants are at hand for permanent planting *just* when the grower wants them, and he can take advantage of every favorable circumstance. Plants heeled in early and transplanted later are much more valuable than those received late and at once planted in the permanent beds.

For discounts on early orders, see "Discounts" below.

We have named in this catalogue all the varieties we have for sale, and we have given prices on such numbers as we can supply.

We cannot accept orders for less than six plants of one variety.

Purchasers are requested to use the order sheet found in this catalogue, filling all spaces and writing plainly. Kindly use the enclosed addressed envelope, as the name of our postoffice is peculiar and easily misspelled.

**PACKING AND SHIPPING** ✂ As we hold no plants over winter in cellars, we cannot fill orders until plants can be dug—generally about April 1st. We then fill them in the order in which they were received, unless requested to fill them at a specified time.

Our plants are carefully dug, thoroughly trimmed, tied in bunches of twenty-five, labeled and packed in the best possible manner. We warrant that plants shipped by mail or express before May 1st will reach their destination safely. In case they fail to do so, we will make good the loss *if notified promptly*. We do not ship plants by freight.



**PLANTS BY EXPRESS** ♣ We can ship directly over the lines of the Adams (and Southern) and United States express companies. We believe that our customers at points where these companies are represented, in Missouri, Iowa and Minnesota and east of these and north of Tennessee, will find it cheaper to have plants in quantities of 200 or more sent by express rather than by mail.

The express companies give a special rate on plants and bulbs, which is much lower than merchandise rates. The minimum charge, however, is 35 cents for each company carrying the shipment, unless the merchandise rate is less than that. To assist our customers in estimating what express charges will probably amount to, we give below a table in which will be found the rate on 35 pounds of plants, boxed, (estimated to be the weight of 1000 plants packed for shipment) from Cuyahoga Falls to a number of the more prominent cities in the territory above mentioned:

Boston - - - - -	\$0.50	Duluth - - - - -	\$1.05	New York - - - - -	\$0.50
Chicago - - - - -	.45	Grand Rapids, Mich. - - -	.45	Philadelphia - - - - -	.45
Cincinnati - - - - -	.35	Indianapolis - - - - -	.45	Pittsburg - - - - -	.35
Cleveland - - - - -	.30	Kansas City - - - - -	1.00	Providence - - - - -	.55
Columbus, O. - - - - -	.35	La Crosse, Wis. - - - - -	.85	St. Joseph, Mo. - - - - -	1.00
Council Bluffs, Ia. - - -	1.00	Louisville - - - - -	.50	St. Louis - - - - -	.65
Davenport, Ia. - - - - -	.80	Milwaukee - - - - -	.55	Springfield, Mass. - - -	.50
Detroit - - - - -	.35	Minneapolis - - - - -	1.00	Toledo - - - - -	.35

NOTE.—The American Express Company is no longer represented here.

**TERMS** ♣ *Cash with order or before shipment.* We sometimes vary from this rule in the case of old customers with whom our past dealings have been satisfactory to us.

**DISCOUNTS** ♣ We will allow discounts from prices in this catalogue as follows, *where the order is accompanied by full payment:*

On orders received before April 1, amounting to Two Dollars and not more than Ten Dollars, five per cent; on orders received before April 1, amounting to Ten Dollars or more, ten per cent.

On orders received during April, amounting to Ten Dollars or more, five per cent.

After April 30, no discounts will be allowed.

**ONE PRICE TO ALL** ♣ The prices in this catalogue are final, except as affected by the above discounts. We therefore respectfully request that lists be not sent us for "special quotations," as we cannot give them.

**SENDING MONEY** ♣ Money should be sent by express money order, postal money order, bank draft or registered letter. Sums of less than one dollar may be sent in stamps.

**GUARANTY** ♣ While we take the greatest care to have all stock true to name, in case any shall prove otherwise, we will not be liable for an amount greater than that actually paid us for the stock. It practically never occurs that our stock is untrue, except in a very few instances where we have received mixed stock from the originator or introducer.

**SUBSTITUTING** ♣ When we are sold out of a variety ordered, we can frequently substitute others to the advantage of the purchaser, if permitted to do so. We never do this, however, without express permission.

## The Choice of Varieties

We appreciate the fact that, to the reader of the ordinary catalogue, the description of varieties is bewildering. Almost the same terms are used to characterize the qualities of many varieties, which really differ vastly from each other. This is largely unavoidable, as there are not terms enough to express all the shades of difference in varieties; and, if there were, so much depends upon individual taste that the terms would become confused. In the following pages we have endeavored to give the grower, or prospective grower, such information as will best enable him to determine what varieties will suit his requirements. To do this, we have, where possible, made comparisons or pointed out the particular purpose to which we consider a given variety best adapted. We have also used freely the opinions of others, hoping in this way to assist the reader in reaching correct conclusions. All this, however, can only serve as a general guide, which will in many instances prove fallible. The only safe way is for each grower to test a number of varieties, which purport to have the characteristics he desires, and form his own conclusions.

We give below a few suggestions as to the best varieties to plant for different purposes. There are a number of excellent varieties which we do not name as we cannot furnish plants of them.

For the inexperienced grower for home use or for those who can devote but little time to the strawberry bed, we recommend August Luther, Johnson's Early or Mayflower for early; Senator Dunlap, Warfield, Woolverton, Sample for main crop, and Brandywine or Klondike for late. Of these Senator Dunlap, Warfield and Sample are excellent for canning.

The amateur who takes pleasure in caring for his strawberries, will get satisfaction from planting August Luther to furnish very early berries; Marshall and Senator Dunlap for second early; Downing's Bride, Margaret, Nick Ohmer, Wm. Belt for main crop; Gandy or Empress for late. These are all large, handsome and of excellent quality. Every amateur ought by all means to test the Miller.

The commercial grower, who desires a large yield of big berries, will, we believe, find it advantageous to plant one or more of the early ones mentioned above; Brandywine or Klondike for late; and Senator Dunlap, Nick Ohmer, Downing's Bride, Parker Earle, Glen Mary, Parsons' Beauty for main crop. He should also test Wm. Belt, Hunn, McKinley, Miller, Bennett, and some other new varieties.

## Some New Varieties

**Miller** (Perfect)—We are unable to give a better description of this variety than that contained in our last July Report. Some six years ago Mr. D. J. Miller, a skillful fruit grower of central Ohio fruited a very large number of seedlings of his own growing. They attracted great attention and were visited by many growers, some of whom went a long distance to see them. I had the pleasure of seeing them, and I never saw as promising a lot elsewhere during over forty years that I have been interested in this fruit. An extended account of them was published in the *Ohio Farmer* at the time. It is safe to say that one hundred varieties that appeared to be worth naming and introducing might have been selected from the lot. Mr. Miller did select over eighty of the most promising and sent this collection to a number of growers. Finally the best two were selected and named "*Dewey*" and "*Sampson*." All the others were destroyed. As the name "*Dewey*" had been given to a berry in Texas, Mr. Miller had to forego the pleasure of giving it to his berry, and it has been



named by us, and it is now known as the *Miller*. I am satisfied that the *Miller* is the best of eighty seedlings that Mr. Miller selected, for I fruited them here.

I consider that the *Miller* is either the best variety in existence, or one of the best. It has fruited here twice and it has not a single weakness that I have discovered. The plant is as large as that of the *Nick Ohmer* or *Marshall*, perfectly healthy, has a perfect blossom and continues to blossom until after some of the fruit ripens. It sends out an abundance of strong runners, is wonderfully productive, and ripens every berry under favorable conditions.

The fruit is very large, roundish conical in form, and of a bright, glossy red color. It is very uniform in shape and size, except that some of the first to ripen are slightly irregular, but never coxcombed or misshapen. It ripens all over, light red at first, getting darker until fully ripe. The coloring extends but a short distance from the surface, the flesh being cream or light salmon. The quality is so good that no person is likely to find fault with it,—it is among the best. The fruit-stalks are strong and of sufficient length, but the fruit is always protected by the foliage. It is easily picked and prepared for the table. When the calyx is removed there is no cavity, but simply a white spot where it was attached to the berry. As to its firmness, I am unable to say, as it has never been shipped. It is probably about a fair average. All things considered, it is the finest berry I have seen this season.

Prof. W. J. Green, Horticulturist of the Ohio Agricultural Experiment Station, says, "*Miller's No. 1* has done very well here considering the fact that our plants were nearly all destroyed by the white grub. It is a very vigorous and productive plant, and I am satisfied that it is a variety that will please because of its large size and good quality."

**Gibson** (Perfect)—Originated in Eastern New York and introduced last spring. It was sent out with very high testimonials, and its first year's behavior on our grounds bore out these claims. It made healthy plants and ran freely. When it bore last summer, we found it to be second early, producing a good crop of large to very large berries, roundish conical, never misshapen, of good quality, and resembling the *Marshall* in appearance.

Mr. Charles P. Knapp, of Connecticut, says (*Strawberry Culturist*, 1900): "*Gibson* has grown the best of the lot,—of sixteen new varieties—has the largest plants and thriftiest foliage."

The Indiana Experiment Station reported last year on the *Gibson* as follows: "The plant is strong and vigorous; fruit large, uniform in shape and very firm, making it a good shipping berry. Judging from a single season's trial, it will prove a good variety for the commercial grower."

Mr. M. H. Ridgeway says (*American Gardening*, 1900): "*Gibson* is another variety that gives promise of value as a market berry. Plants are good growers, healthy and productive. Berries are large, smooth, firm, dark red in color, and of good quality."

**Senator Dunlap** (Perfect)—Originated by Rev. J. R. Reasoner, of Illinois, and introduced by us last year. Those who read our last July Report may have considered that we were somewhat extravagant in our praise of this variety, but we have not a word to retract. We have never before sent out a variety of whose future we were as sure as of this. It was originated by a skillful and careful grower, quite thoroughly tested, and reported upon most favorably by experts in Illinois. We have seen it in bearing two seasons, have watched its growth, handled the plants and received a number of reports on it; and we firmly believe it to be the greatest all-around berry now on the market.

In the first place the plant is perfect. We have never before seen plants go through



such hardships as some plants of this variety have gone through and then grow and show no bad effects. The plant is not large. It resembles the Warfield, tough, bright, a rampant runner and ready to grow under any circumstances. This, we believe, is the greatest sign of its ultimate success, when it shall have been thoroughly disseminated. It has been such varieties as the Crescent and Michel that have held their own for years and could not be displaced by other varieties better than they in every way except vigor and productiveness. But the Senator Dunlap is of this class only in these two particulars. In fruit it belongs in entirely different company. Except for size, it ranks with the Wm. Belt and Nick Ohmer. It is wonderfully productive and every berry is generally brought to perfection. The fruit is beautiful, bright red and glossy, as regular as if cast in a mold, never known to be misshapen, of delicious quality, large but not the largest, firm, a good shipper and splendid keeper, and, when canned, one of the richest varieties we ever saw. It begins to ripen early and remains a long time in bearing. We believe that it must be given plenty of room or restricted in running to get very satisfactory results, otherwise the plants will crowd each other seriously.

We will not repeat here the glowing testimonials given by the officials of the Illinois Experiment Station and others, published in our catalogue last year, but subjoin some received since last summer. Among these is the only unfavorable report we have ever received. Mr. John F. Beaver wrote last July: "Senator Dunlap produced some very fine berries, but many buds blasted and did not make berries." In August, Rev. John Gregory, of Michigan, wrote: "The Senator Dunlap is with me growing finely. The five plants you sent have produced over one hundred layers, now ready to put out."

On September 27th last year, Mr. Wm. Brown, of Kansas, wrote us as follows: "All the plants received from you last spring are doing well (Gibson, Klondike, Senator Dunlap and Empress); but Senator Dunlap has made about twice the number of plants of any other. I took up of that variety yesterday and set out about 500 plants (he bought 12 plants last spring) and think I could take 1200 more and have enough left for fruiting."

On June 11, 1900, Mr. B. C. Warfield, of Illinois, originator of the Warfield, wrote Mr. Reasoner the following: "As the berry season is over, I will report the behavior of your seedling strawberry, Senator Dunlap: from the 13 plants you sent me for trial in the spring of 1899, I grew 350. I set out 300 of them this spring and they are growing finely. Fifty plants I left to fruit. They fruited well, and the plants, after all the berries are picked from them, are looking fine and vigorous with no sign of rust of any kind.

The berry is classed as medium early, ripening with my Warfield No. 2. It began blooming as early as any variety. I tested its keeping qualities by picking some of the berries in a box and placing it in the cellar alongside my Warfield No. 2 and several new seedlings, and keeping them six days. At the end of the six days your Dunlap were looking fine for so long a time. There were none in the lot that looked any better. I must say they were in better shape than the Warfield, they are sweeter. A friend was sampling the berries and when she tasted the Senator Dunlap she remarked: "Oh! this is the best one I have tasted." From the testimony of others I have in the catalogue of M. Crawford, men in whom I have the most confidence, and what I have seen of the Senator Dunlap, I shall not hesitate to plant it largely; but one point I would like to ask you, have you or any of your neighbors ever used it as a fertilizer for any of the standard pistillate varieties? I was wanting to know if it could be used with the Warfield with good results. Now, in conclusion, I will recommend for profit, the Senator Dunlap to all growers for vigor of plant,



good plant maker, free from rust, good size and glossy red color making an attractive appearance in the box, fine quality, and good keeping qualities, making one of the best berries to plant. I have no fault to find with it, and nothing to say but good in its favor."

**Bennett** (Imperfect)—Originated near Cincinnati and introduced by us last year. It had been somewhat disseminated near home before introduction and had acquired an enviable local reputation. It is a good grower, clean and thrifty, and a very prolific bearer. The fruit is rather long and pointed; always uniform in shape and generally so in size, large in the beginning of the season and medium afterwards; deep scarlet when first ripe, but becoming crimson if left on the plants. We consider the quality fair. The season runs from second early to quite late, having extended over a period of five weeks. The fruit will hang on the plants an unusually long time without spoiling. We believe this is destined to become one of the reliable market varieties of the country.

## Black's Pedigree Strawberries

We offer this year three of the pedigree varieties sent out last year by Messrs. Jos. H. Black, Son & Co., of New Jersey. We have not yet seen them in bearing, but we have seen the fruit of one or two of them, shipped here by the originators; and we have watched their growth for the past season. We have confidence in them, not only from what we have seen, but because of the manner in which they were originated, the high standing of the originators, and the splendid testimonials given by the *Rural New-Yorker*, whose reports on strawberries have for years been among the most valuable issued.

In their catalogue for last year, the Messrs. Black explained that in producing these seedlings they sought *first*, health and vigor of plant and foliage; *second*, length of life and endurance of the same; *third*, productiveness; *fourth*, size and shape; *fifth*, firmness; *sixth*, color; *seventh*, quality; *eighth*, season. For three consecutive years the *Rural New-Yorker* called attention to the unusual vigor of these seedlings. With us they have made a very fine growth. The plants were received last spring, heeled in, transplanted late, in a dry time, and on rather heavy land. While they have not proven rampant runners, nor are the plants very large, they have clean, tough foliage with every evidence of health and vigor. The following descriptions are taken from the originators' catalogue.

**JOE** (Perfect)—Middlefield and Chairs were crossed to get the quality and form of the former and size of the latter. The seedling was crossed with Sharpless to get vigor of plant. This seedling was crossed with Gandy to get firmness. The result was the Joe. It is productive and carries its fruit well up from the ground, "fruit large to very large and continues large to the end of the season; firm; in form it is obtuse conical and very uniform in size; red with red flesh; quality good; season late."

**NETTIE** (Imperfect)—"A seedling of Bubach and Yale was crossed with Sharpless. The best of these seedlings was again crossed with Gandy, and among them was found the Nettie, the largest strawberry that we have ever fruited. It combines with this valuable quality the productiveness of the Bubach and the vigor of plant so prominent in Sharpless. Plant and foliage exceptionally strong, vigorous and healthy; enormously productive; berries very large, bright red, excellent quality. Ripens very late."

**ROBBIE** (Perfect)—"This variety was produced by crossing with Gandy a seedling of Shuster's Gem and Kentucky. Shuster's Gem being a seedling of Crescent and Sharpless, combined the cardinal virtues of these varieties in strong, robust



plants, berries of great beauty, large size and wonderful productiveness; and all through its seedlings of both crosses it shows these points of merit. Robbie is a strong plant exceedingly vigorous, healthy and productive. Berries, large, round, bright red, firm and of exceptionally fine quality. Ripens very late."

After the season of 1900 the originators said (*Rural New-Yorker*), "In all our tests of last year we do not consider that anything came near being as late or as fine as the Nettie and Robbie, and less affected by heat and dry weather."

**Emperor** (Perfect)—Originated by the late John Little, of Canada, and introduced by us last spring after we had fruited it six years. It makes a large, stout, healthy plant, which produces heavy crops of large berries. The first berries are apt to be somewhat seamed or corrugated, but the main crop is usually of regular, roundish conical form. The color is dark red and extends well toward the center. It is reasonably firm and of good quality. Its great productiveness and large size chiefly recommend it. Season medium.

**Empress** (Perfect)—The companion of the Emperor and the preferable one with us, although at their home the Emperor is superior. The plant is a healthy, luxuriant grower and a great bearer. The fruit begins to ripen shortly after the early berries, but the season is so long that the variety may be considered as among the very late ones. The fruit is large, somewhat longer than the Emperor; never misshapen, though sometimes slightly ridged; dark glossy red and very handsome; of high quality. We believe this is destined to be one of the finest late berries on the market.

**Kansas** (Imperfect)—A chance seedling from the state for which it was named. Mr. W. F. Allen, of Maryland, purchased twelve plants for \$100 and later bought the entire stock. Last spring we purchased plants from him largely on the strength of a friendly "tip" from Mr. R. M. Kellogg, of Michigan. Mr. Kellogg tested it before introduction and says the fruit and plant showed greater points of excellence than any other of about 250 varieties on his grounds; several hills yielded over four quarts each with him. With us it is a fine, healthy grower; but we have not yet seen the fruit. Mr. Allen says, "Its drouth-resisting qualities are superb. Its fruit is a deep crimson, not only on the surface but through and through. This feature together with its own strong strawberry flavor, will make it when it becomes better known, perhaps the most popular strawberry for canning ever yet produced. Time of ripening, late. It is productive of fine, medium to large berries that make a very handsome showing in the package, and always attract the best buyers. The berry is firm enough to make a good commercial variety." The originator says, "I have now been fruiting the Kansas for ten years, and have never missed a single crop, although they received no better care than other varieties I was growing."

**Pennell** (Perfect)—A Connecticut variety, introduced by us last year. We have found it a vigorous grower, making a fair number of plants the first year and sending out runners freely before fruiting season. It bears a good crop of large, round, bright red berries of rich quality. The fruit is tinted to the center and has no core. The fruit stems are stout and erect. We consider the variety valuable for home use or fancy market.

**Sunshine** (Imperfect)—A Delaware berry introduced last spring by Myer & Son, from whom we received our plants. We have not fruited it but have merely seen it growing for the past season. While it was under unfavorable conditions, we were not pleased with its growth as compared with other varieties under similar conditions. We give the introducers' description:

"Sunshine is a late strawberry of large size, bright color, high quality, and great firmness. It ripens with Gandy, which it resembles in a general way, though far superior. It begins to mature its berries about one picking ahead of Gandy, and continues several pickings after Gandy is over, holding up its size and quality throughout. It is rather oblong, obtusely pointed, regular in form, of enormous size; it is bright, glossy scarlet, ripening up evenly, with no white tips, and the flesh is red all through, firm, sweet, and of high quality. The best test is the practical one of market value. During the season of 1899, Sunshine brought 18 cents per quart, when well-grown Gandy was selling for 10 and 12 cents. Sunshine started for market big and glossy, and got there in the same shape, holding its color and gloss. It is enormously productive, producing five to seven times as many quarts as Gandy when grown side by side with it. The plant is healthy-looking and strong-growing making runners freely. The growth is of the Sharpless type."

**W. J. Bryan** (Perfect)—An Illinois variety introduced by us last spring. Although endorsed by competent judges who had seen the fruit as grown by the originator, the variety was handicapped by not having been sufficiently tested in different places. With us it made a good growth the first year and a magnificent growth the past season. The plants are clean, vigorous, dark green, run freely and are very productive. The fruit, as we grew it last summer, was large and beautiful, regular conical and uniform in shape, with smooth surface, glossy red color and good flavor. The originator wrote us about a year ago that the W. J. Bryan brought higher prices on the Chicago market than any other of seventy varieties he shipped there, that it is more productive than Clyde, lasts through a longer season and ripens later. We believe this one of the very valuable new varieties and worthy of trial by all growers.

## Three Very Early Ones

**August Luther** (Perfect)—This is one of the most valuable early varieties we have ever tested. It was originated near Kansas City a number of years ago by Mr. August Luther, but was introduced only recently.

The plant is a tough, slim grower with long cord-like roots, a rampant runner, free from rust, and showing great vitality. Last summer it was our earliest variety, giving the first ripe berry on June 4th and many the next day. On the 7th it was full of bright red, roundish conical berries, firm, easily picked, and of good quality for so early a berry. It continued in bearing until it matured nearly all its crop, although it was on hard, heavy ground, and the season was very dry.

The most interesting as well as valuable, testimonial we have received for this variety came last August from Mr. G. W. Howard, a large commercial grower in western Michigan, who tests nearly everything and had the August Luther before its introduction. This is the more interesting, when it is remembered that Excelsior is being lauded as the greatest early variety. Mr. Howard's letter is as follows: "Your report on the August Luther corresponds exactly with my experience. I have fruited it four seasons. This year I had half an acre with a half acre of Excelsior on each side, making a fair test. While we had a few berries on the Excelsior in advance of the Luther yet both were ready for the first picking the same day; and the Luther yielded three cases to one of Excelsior through the season. But the most remarkable fact is that we quit picking them, thinking we had the crop, until twelve days later my pickers went in and picked twelve 16-quart cases, shipped them to Chicago and they brought one dollar per case, being the average market price at that time. The weather was cool but no other variety that I am acquainted with would come anywhere near doing that. My son had about the same experience—let his hang six days and got more for them than for any of his other berries."



**Johnson's Early** (Perfect)—A Maryland berry produced from a cross between Crescent and Hoffman. The originator says, "It is larger than Hoffman, deep red in color, glossy, firm, sweet and of excellent flavor, as productive as Crescent, ripens with Michel's Early." In 1898 it yielded on a small piece at the rate of 6,000 quarts to the acre. That year the originator shipped his berries to J. Shanley Davis, a New York commission merchant, who wrote him that they brought almost double the price received for other berries from the same section. On Mr. Davis' recommendation, his brother purchased 40,000 plants the following spring.

We have fruited it but once and then only in a very small way and under unfavorable circumstances. We found it of fair size, rather long conical, red all over and quite tart. We did not like it as well as the August Luther which was two days earlier, larger, better flavored and equally productive. In comparing it with August Luther, it must be considered that the one comes from the prairie soil west of the Mississippi and the other from the light soil of the Atlantic seaboard and the two have scarcely met in fair competition as yet.

The Johnson's Early is a clean, healthy grower and a most rampant runner. One writer says it is a great improvement over Michel's Early and that the fruit is large and of good color and quality. Mr. W. F. Allen, of Maryland, who has grown the variety extensively, says, (*Rural New-Yorker*) that it "is medium large, quite firm, a very showy berry, being highly colored and good quality." He especially warns growers not to let the plants get too thick.

**Mayflower** (Perfect)—This is a valuable very early variety. As we did not have it in bearing last year, we cannot compare it with August Luther and Johnson's Early; but, from our experience with it in 1899, we believe it is as early as either. It is a good grower, a rampant plant-maker and will get entirely too thick if left to itself. The fruit is of good size for a berry of that season, red, firm and of good quality and is produced in abundance.

## Four Late Kinds.

**Brandywine** (Perfect)—Originated near Philadelphia and introduced by us. This has now been proven one of the most reliable late varieties of the country. It is a splendid grower, fair plant maker, very productive. The fruit is very large, heart-shaped, firm, of good flavor and good color. It begins to ripen in midseason but continues till nearly all other varieties are gone. It is seedy when canned. It is one of the best pollenizers for pistillate varieties of nearly all seasons. While almost all reports are very favorable, Messrs. R. D. Mason & Son, of Wisconsin, say it lacks productiveness and that the big calyx turns brown before the fruit is ripe. Dr. E. L. Beal, of Missouri, says the calyx will remain green if the variety is grown on dark prairie land. Mr. H. Rockhill, of Iowa, found Brandywine his best berry in a very bad season last year, running twenty to the box, the largest weighing one ounce each.

**Gandy** (Perfect)—This has for years been the standard late variety, and as yet nothing has fully superseded it. It is a fine grower, makes rather more plants than the average variety, produces large berries of beautiful form and color and excellent quality. Its chief fault is lack of productiveness, for it is only a moderate bearer. It is slightly later than Brandywine and not quite so late as Hunn, but the fruit is of a somewhat higher class than that of either of these or of the Klondike. It bears remarkably good crops on old beds. The fruit has a fragrance surpassing that of any other variety we know.

**Hunn** (Imperfect)—Originated at the New York Experiment Station. It is with us a fine grower, strong, vigorous, a fair plant maker, and having thick clean leaves. It commences to ripen about the time all other varieties are gone and in a short time produces a large crop of dark, glossy red berries of good size and quality, firm red flesh and roundish or conical (sometimes triangular) shape. Of twenty varieties canned here, the Hunn was the handsomest, but the Senator Dunlap proved richer.

The reports on this variety are exceedingly conflicting. In New York and Michigan it blighted badly. One grower near here says it blights on dry, exposed land but not on damp, low land. Messrs. W. F. Allen, of Maryland, and Francis Brill, of Long Island, report it utterly worthless. Dr. Edward Rushmore, of New Jersey, says, (*American Gardening*, 1900), "The Hunn has rusted badly since ripening its fruit. We have had a good deal of wet weather, and I have never seen the rust so bad before." Mr. B. F. Hawes, of New York, wrote us last fall, "I endorse all you say of the Hunn. It is absolutely free from rust with me." Mr. W. S. Todd, of Delaware, said after seeing it in 1899, "Ripened later than Gandy and was twice as productive. My plants were on low land and did not rust." Mr. E. W. Wooster, of Maine, says, "It is a little inclined to rust in a wet season, but in a dry it is all right."

Mr. Geo. T. Powell, one of the most thorough horticulturists in the country, reported last summer in *American Gardening* that on his farm at Ghent, N. Y., frosts in May killed all blossoms that were open and killed of those in bud 60 per cent. of Johnson's Early and Bismarck, 50 per cent. of Brandywine, 20 per cent. of Glen Mary, 18 per cent. of Parker Earle, but only *two per cent.* of Hunn. We believe this is a variety that every grower should test but not plant largely until he has tested it.

**Klondike** (Perfect)—It came from Massachusetts and has made a wonderful record there, selling in the Lawrence market for seventeen or eighteen cents a quart when others brought but ten. It is a thrifty grower, making many rather small but strong plants with thick dark green foliage. The blossoms appear late and are not likely to be killed by frost. The fruit is dark red when ripe, red clear through, large and beautiful. It is more productive and of better quality than the Hunn but not quite so late. It is as good and as late as the Gandy, more productive, but not so handsome. It begins to ripen before either the Gandy or Hunn and its lateness is largely due to its long season—a month, under favorable conditions. We believe that it is a safe variety for growers to plant—safer than the Hunn and more satisfactory than the Gandy when yield is considered. The Indiana Experiment Station says one year's trial shows it to be a good grower, ripening its fruit ten days or two weeks later than the Johnson's Early.

## Varieties of Various Seasons.

**Beverly** (Perfect)—This was originated a number of years ago by Mr. B. M. Smith, of Beverly, Mass., and is one of the high-class varieties that meet with approval about Boston. The plant is vigorous, healthy and productive. The berry is large, conical, dark glossy red, colors all over, firm, fine looking and very good. It bears a long time. The Indiana Experiment Station says it is one of the earliest to ripen and is a good berry for general planting.

**Bismarck** (Perfect)—Originated in Arkansas from a cross of Bubach and Van Deman. The plant resembles the Bubach but is more robust and stocky and equally healthy. The fruit is of large size, obtuse conical, never coxcombed, very firm and solid, bright scarlet in color with no green tips. It is of better quality and firmer



than the Bubach, slightly earlier and remains until late. Some growers report that it is larger and more productive than Bubach, while others say it is no larger and is not very productive.

**Bubach** (Imperfect)—One of the most popular and reliable of the old varieties, a thrifty, vigorous grower, producing large crops of very large fruit of only fair quality and not very firm. It is an excellent variety for near market.

## Downing's Bride

(Imperfect)—This variety was sent out by us several years ago as a premium, as "No. 1000." It is one of the finest varieties in our collection. It is a good grower, the plants being large, healthy and very productive. The fruit is very large, of regular conical form, bright glossy red. The berries shine as if they were varnished and are as good as the Wm. Belt or Marshall. They resemble the old Jucunda in appearance. Mr. Wm. F. Wise, of Virginia, who named the variety and grows it extensively, finds it slightly inclined to rust, but considers it superior to the Wm. Belt in every way. While we can scarcely go so far as that, we would most heartily recommend it to every grower for home use and to market growers who want one of the most beautiful berries in existence.

## Glen Mary

(Perfect)—Originated near Philadelphia. We tested it before introduction but did not like it because the fruit was uneven under high culture; but, since it became known, it has become so popular that growers of plants must have it. It makes a fair number of enormous plants, is vigorous and productive. The fruit is extremely large, highly colored, firm and of good quality, and has but the one fault above mentioned, so far as we know. Last spring the demand for plants was so great that several large growers were sold out some time before the end of the season.

In *American Gardening* the following report appeared last July: "Glen Mary bore tremendous crops. Fruit large, but inclined to be rough and open at its ends, also had a hard core."

Mr. J. W. Bruckart, of Pennsylvania, reports in the *Strawberry Culturist*: "This was the first big berry to ripen, except Bubach. It was also one of the latest big berries and gave us the biggest berries of the season and also the most quarts, with one exception. It is of good quality and color, foliage fairly healthy, but makes rather more plants than desirable. If I were to confine myself to one variety for market it would be Glen Mary."

In the same paper, Mr. Charles P. Knapp, of Connecticut, says: "Glen Mary with all frost and dry weather gave the best and finest berries. I had fall set plants among the spring set, where plants had died out the year before. Fall set plants of this variety bore more fruit than spring set plants of other varieties. Glen Mary plants have done the best and borne the most and have kept the greenest of any in the old bed. I really think it excels any variety I have on the place."

**Lloyd or Seaford** (Imperfect)—The plant is very large, a fair runner and very productive. The fruit is very dark, glossy red, dark to the center, of good quality, solid, and a good shipper. It begins to ripen before Bubach and remains in bearing almost as late as Gandy.

**McKinley** (Perfect)—From Rochester, N. Y. The plant is a fine grower, of good size, a fair runner, clean thrifty and productive. The fruit is large, firm, bright red, red clear through, roundish conical in form, very attractive and of high quality, though not so good as Wm. Belt and Senator Dunlap. We consider it a safe and desirable berry to plant for any purpose. The season is medium to late.

**Margaret** (Perfect)—Originated by Mr. John F. Beaver, of Ohio, and introduced by us. Probably no berry has ever made a better amateur record than the Margaret did under the skillful care of Mr. E. C. Davis, of Massachusetts, where it produced perfect berries over three inches in length. The plant is of moderate size, a fair runner, healthy, and a great bearer. The fruit is very large throughout the season, generally conical in form, sometimes rather long, never misshapen, dark glossy red, not inclined to have white tips, firm, and of excellent flavor. As a variety for home use under high culture, we do not know of any superior to the Margaret, but we do not recommend it to careless growers, as it is likely to disappoint them. The season is medium to very late.

Last August Mr. Charles W. Smith, of Nova Scotia, who had shipped his berries to Boston and cleared \$5.25 a bushel, wrote us as follows: "Last year I thought I would destroy the Margaret; but, if I had, I should have missed it. I picked more baskets of large, fine berries of it off the same amount of ground than of any other out of twenty different kinds. Woolverton was next."

**Marshall** (Perfect)—Its home is Massachusetts, and there it continues to be a favorite. The plant is very large and makes runners only sparingly. The season is second early, several days later than August Luther and Mayflower, but still ahead of the main crop. It does not belong to the class with the very early berries, for most of them have neither very large size or first-class quality, while the Marshall has both. It is not considered a good bearer. It really produces more bushels than one would give it credit for in looking at the plants; for it does not set many berries, but nearly every one is large and many are very large. They are of regular form, dark glossy red and very beautiful. The blossom is more tender to frost than some, and the plant sometimes rusts. This is not a variety for a careless grower to plant, but every grower of fine berries either for home use or market ought to give it a trial at least.

Dr. Edward Rushmore, of New Jersey, says if he were restricted to one variety it would be the Marshall, "as giving the longest season and the largest and sweetest fruit of all." For years the Marshall has captured most of the prizes at the strawberry show of the Massachusetts Horticultural Society. Last summer it took the first, second and fourth general prizes, Bubach taking third; and first and second for "best for garden cultivation for home use," Nick Ohmer taking third.

**New York** (Perfect)—In 1898 Mr. W. F. Allen offered \$100 for a variety that would produce as much fruit of as large size and good quality as the Glen Mary. It was captured by a New York lady with a seedling of Bubach and Jessie, which Mr. Allen named New York. The plant is very large and makes comparatively few runners. The fruit is very large; of regular form, conical; dark scarlet, changing to crimson when fully ripe; colors all over at once, with no green tips. The season is medium. In his fall catalogue for 1900, Mr. Allen says, "In productiveness it is hard to believe it has an equal. My father, the past season, fruited two rows of New York about fifteen rods long, which he marketed in our local market, and which paid him more clear money than his best acre of our old standard varieties." He does not recommend it especially for distant markets.

**Nick Ohmer** (Perfect)—Originated by Mr. John F. Beaver and introduced by us. We have always had great confidence in this variety, and are gratified to know that it is giving almost universal satisfaction over the country. The plant is a good grower, of large size, free from rust, makes a good number of plants and bears very heavy crops. The fruit is very large, one of the largest; dark, glossy red; firm; of good quality;



of roundish conical form and never misshapen, although the largest specimens are sometimes triangular and slightly seamed. It has a long season, extending from early medium to late. It is especially adapted to hill culture. It amply repays good care, but in the hands of a poor grower will probably not give the results that some others will.

At the Rhode Island strawberry exhibition, held in Providence, June 25 last, the Nick Ohmer was awarded three first premiums, for "best four quarts of any variety," for "best two quarts of any variety," and for "best two quarts of any variety best adapted for general cultivation for home use." These exhibits were all made by Mr. A. W. Clark.

In the *Strawberry Culturist* last fall, Mr. J. W. Bruckart, of Pennsylvania, says, "Not as early as Glen Mary nor as prolific, but just as large. Makes no buttons, better shape, color and quality. Foliage quite healthy. It is a vigorous grower and throws out plenty of runners, but not so many as some others. My first choice for private gardens." In the same publication, Mr. Charles P. Knapp, of Connecticut, says, "Nick Ohmer set a few large berries and a good many small ones. It blights badly here." Mr. M. H. Ridgeway, of Indiana, says (*American Gardening*), "Nick Ohmer produced some of the largest and handsomest berries grown on our farm this season, but is hardly productive enough for a market variety."

Last summer *American Gardening* said, "Nick Ohmer is a fine grower and carries its fruit on strong stems well up from the ground. It is heavy and large in leaf. The fruit is of a beautiful shape and color, coming in as early as the majority and continuing as late in the season as any on the list; the last berries, picked July 6, were of fine appearance and fully up to requirement in size and flavor. The berries average large from beginning to end of the season and it is a great bearer. Good pickings were gathered July 6" (in New Jersey near New York City).

**Parker Earle** (Perfect)—A Texas variety that has become a favorite market berry. The plant is immense but makes very few runners. It generally sets more fruit than it can bring to perfection, unless it be on moist, rich ground. It matures a very large crop, but it is not pleasant to see so many berries dry up. It has been known so produce over two quarts to the plant on 1,200 fall-set potted plants. The fruit is large, rather long, bright red, firm and of good quality but not the best. Its season is rather late.

## Parsons' Beauty

(Perfect)—Discovered in Maryland about ten years ago, it became very popular in its own neighborhood, and was introduced

two years ago. We have fruited it only once, but we believe it has the characteristics of a popular market berry. The plant is very large—about the size of the Glen Mary,—makes plants quite freely; is free from disease of every kind; and is probably not excelled in productiveness by any other variety on the market. The fruit is very large and showy; bright red all over, with no white tips; resembling the old Wilson in color and firmness; often corrugated, but not otherwise misshapen; and quite tart. The season is medium. The introducer, in 1899, picked 8,000 quarts from an acre before prices got too low to justify shipping, and then left fully 2,000 quarts on the plants. This variety will certainly be a money-maker unless the signs fail.

**Ruby** (Perfect)—A chance seedling, supposed to have come from Crescent fertilized by Sharpless, found in Illinois ten or twelve years ago. The plant is large, robust, prolific and a good runner. The fruit is large; generally conical, but sometimes misshapen; dark scarlet, glossy, red clear through, sometimes having white tips; retains its color when canned; of excellent quality.

*American Gardening* says, "Ruby leads in richness and intensity of color, and its flavor is superb." The Indiana Experiment Station says, "This is a free plant maker, and the fruit is large, regular and of good color and firm enough for a shipping berry." Mr. Charles C. Nash, of Michigan, writes in *American Gardening*, "Ruby is not as satisfactory as desired but is a great producer of plants, which show vigor." Mr. W. F. Allen, of Maryland, says (*Rural New-Yorker*), "Ruby has set a large crop, but the berries are not perfect. In fact, the Ruby never seems to per-

fect it fruit here." Mr. Charles P. Knapp, of Connecticut, says (*Strawberry Culturist*), "Ruby set an immense amount of fruit but blighted and ripened almost none."

**Sample** (Imperfect)—Discovered in Massachusetts seven years ago. That it is one of the greatest berries we are satisfied. The plant is all that could be asked, strong, healthy, a good runner and an enormous bearer. On the originator's grounds it bore at a rate, conservatively estimated at 500 bushels to the acre. The fruit is very large, roundish conical, inclined to have a neck, and uniform in shape; dark colored to the center, colors all over at once; quite firm; bears a long time; does well in matted rows; very fine for canning. It is a fine variety for home use or market under any kind of culture. That is our opinion, but we have found some who differ from us materially. *American Gardening* says it is no better than Gladstone, which is light colored, destitute of flavor and a shy bearer. Mr. Thomas Wilde, of Michigan, says it is a big yielder but buyers do not like it. Mr. Charles P. Knapp, of Connecticut, says in *Strawberry Culturist*: "Sample did finely, but I don't like the berry; not good quality."

On the other hand, Dr. Edward Rushmore, of New Jersey, says (*American Gardening*): "Sample was good every way and among the latest." Mr. M. H. Ridgeway, of Indiana, says in the same paper: "This variety is about all its introducer claimed for it. A good plant grower, far above the average in productiveness, berries nearly all of large size, good form and color, firm and fair quality. Probably the most productive variety producing large berries."

**Warfield** (Imperfect)—An Illinois berry that scarcely needs a description. A rampant grower and maker of small, tough plants, wonderfully productive. Fruit generally of medium size because the plants are crowded, but large with good culture; conical; very firm, a good shipper and keeper; good quality; good color; season medium early. It has been a favorite market berry for years and is especially desirable for canning. The great danger in growing it is in letting the plants get too thick. Where it has been grown in hills the result was astonishing.

**Wm. Belt** (Perfect)—Originated near Cincinnati by the late Wm. Belt, and introduced by us. We sent it out feeling certain that it was going to become a general favorite. With us it was a magnificent grower and has generally continued to be so, although rusting somewhat at times. The plant is very productive of beautiful fruit; extremely large; generally of good shape, except that the first berry on each fruit stem is likely to be flattened and misshapen; of brilliant red color; firm, and of as high quality as any berry we ever knew. We have considered it one of the very best for any purpose, and still have the greatest confidence in it for our own growing. Several years' fruiting in various parts of the country has, however, brought out reports of great difference in character. Its chief fault is that it rusts—in some places to such an extent as to be almost worthless. Some growers report it as only moderately productive; others say that, while it rusts, the rust does not appear to affect the crop; and others consider it the finest variety ever introduced. Under these circumstances we can no longer recommend it without qualification. We would advise every grower, either for market or home use, to test it. If it does well on his land he will have one of the most valuable acquisitions, for at its best it has few equals and perhaps no superiors.

**Woolverton** (Perfect)—One of the late John Little's berries, introduced in this country by us. It has been popular for years. A strong, healthy grower, fair plant maker, very productive. The fruit is of large size, good quality, good color, with white tips sometimes. Strictly reliable and safe to be planted for home use or market. Season medium. It is one of the best varieties to plant with pistillates, as it blooms a long time and produces pollen abundantly.

In the *Rural New-Yorker* Mr. W. F. Allen wrote as follows last summer: "Saunders and Woolverton are about the same in this respect. Saunders, however, is a little darker colored and a little more perfectly shaped. Both varieties are very productive and have almost a full crop, notwithstanding the extreme drouth. For all kinds of seasons on my farm I count it about the safest to plant for fruit, as it has never disappointed me." The Saunders was also originated by Mr. Little, but we have always considered the Woolverton the better of the two, especially as the Saunders has such a tender skin that it bleeds when handled.



## GLADIOLUS BULBS

Last year we stated in our catalogue that we proposed to withdraw from the retail trade in gladiolus bulbs. This brought from a number of our customers expressions of regret, and we finally concluded to hold a few thousand bulbs for retailing, and devote a page or two in the catalogue to them.

Last summer and fall we accepted orders from dealers to such an extent that we found ourselves entirely sold out of Standard Mixture No. 1 and with a rather limited supply of some other classes. We would therefore suggest that any of our customers desiring bulbs should order early before the supply is exhausted.

### OUR STOCK

Our stock consists of two classes of mixed blubs—Standard Mixture and Groff's Hybrids. To appreciate their characteristics and differences it is necessary that one understand to some extent the subject of "strains" in gladioli. Strains are not varieties, but are in the nature of artificial species, each having thousands of varieties. The best known is the Gandavensis. Its characteristics are strong, straight flower stems, somewhat rigid; long flower spikes, generally with a large number of flowers open at once; flowers of good size, broadly opened, and generally of good substance. The characteristics of the Lemoinei are very different. The flower stem is slender, tough, frequently crooked, and much less rigid and more graceful than the Gandavensis. When the strain was introduced the flowers did not open widely, but this fault has since been corrected to some extent. The coloring is wonderful, light flowers with dark throats, dark flowers with light throats, gorgeous hues and metallic tints being common. The flowers have fully as much substance as those of the Gandavensis. The Nanceianus is much like the Gandavensis but with larger flowers, often more beautifully marked, but thinner in substance. This strain has not the constitutional vigor of the Gandavensis. The Childs is practically a very large, robust Gandavensis, with immense flowers, whose petals are frequently as thin as tissue paper and unable to stand hot winds. When first introduced very many flowers were red, but now there are more of other colors.

**Standard Mixture**—Our stock originally consisted of named varieties of Gandavensis. To these were added some named Nanceianus and Lemoinei varieties, and very large numbers of Gandavensis and Lemoinei seedlings. For years we marked out choice varieties from which to grow seed and for a long time sold none of these bulbs or their increase. We also grew a considerable stock of a number of choice named varieties, and some bulbs under color. Last year we added nearly all of these to the Standard Mixture. It now consists of such varieties as May, Eugene Scribe, John Bull, Ceres, Mabel and a small proportion of Bertha, Lulu, Mary, Mrs. Crawford and others; the remainder was grown originally from seed. No one variety preponderates, but light colors are very strongly in evidence. Indeed, we believe there are few mixtures at a low price so light in color as this and none better.

**Groff's Hybrids**—This is a new strain. It was originated by Mr. H. H. Groff, of Canada, after years of careful work in hand-hybridizing the best of all strains obtainable in America and Europe as well as original species. We believe that in this strain is to be found the highest development of the gladiolus yet achieved. The strain has more vigor of growth than the Gandavensis, although with us the plants are not as large as the Childs. The flower stems are strong, tough, less rigid than the Gandavensis, less likely to be crooked than the Lemoinei. The spike is long, but frequently only a few flowers are out at once. In this regard the strain

resembles the *Lemoinei*. The flowers are large, many as large as *Childsi*. They have great substance, equaling or surpassing the *Lemoinei* in this regard. The coloring is magnificent. While a considerable number of the flowers red, the red is frequently that of velvet, intense. The flowers of all colors are generally beautiful examples of clearness and cleanness in those colors. The number of grand smoky varieties is unusually large.

Our stock of this strain, which is one of the largest in the United States, was procured directly from Mr. Groff himself. Our importations consisted of fourteen ounces of seed in 1895 and 10,000 small bulbs grown from bulblets from seedlings in 1899. The seed was not equal to the standard later achieved by Mr. Groff, but we culled our stock thoroughly retaining only the most desirable varieties. We believe this stock to be superior to the importation of 1899. Below we give the opinions of some other growers concerning this strain.

Mr. James Sprowl, of Randolph County, Ill., says, "The Groff's Hybrids I got of you are away in advance of any sorts I have ever seen."

Mr. G. W. Howard, of Berrien County, Mich., wrote us in August last: "The 100 gladiolus bulbs you sent my wife surpass anything we ever had before in that line. (She planted them). Later on I planted and cared for the Groff's Hybrids. When they commenced blooming, I thought to mark the most fancy ones, but soon found that I would have them all to mark, so quit. One of them bears flowers over four inches in diameter."

Early last September we received a letter from Mr. Charles A. Bannister, of Hampden County, Mass., as follows: "I got a hundred of your second size Groff's Hybrids to add to my two or three thousand, and none but a genuine flower lover understands the solid pleasure that I have had in watching these new and beautiful varieties bloom out. Nearly all have bloomed now. They are a grand lot. Some are new to me both in form and color. Many have individual flowers five inches or more across. They are as large as the largest of my *Childsi*, and nothing surpasses them for brilliancy of coloring."

Mr. H. Rockhill, of Grundy County, Iowa, wrote us under date of August 6, 1900, "The gladioli are now in full bloom and they are a lovely sight. There are from 100 to 200 different kinds of colors and markings. Average height, about 4 feet; tallest Standard Mixture, 5 feet, 3 inches; tallest Groff's Hybrid, 5 feet, 4 inches; spike, 2 feet, 8 inches with 26 blossoms, 3½ inches across. I went out and measured these to tell my story by."

Mr. S. S. Bailey, of Kent County, Mich., who grows bulbs by the thousand, said in a letter to us last August, "I am more than pleased with the gladiolus bulbs (Groff's) which you sent me in the spring—about 400. The flowers are *grand*. Some of them measure seven inches across. The colors *intense*. Never saw the like before. We are proud of them. We have an immense lot of flowers now."

### CULTURAL DIRECTIONS.

Mr. Groff says in *American Gardening*, "I advise planting as early as possible, giving consideration to the danger of the first tender shoots being injured by spring frost. This course, when using corms of all ages, gives succession of bloom with full maturing and ripening of the corms." While large bulbs planted as late as July 1st, will bloom, the bulbs will not reach full growth, and Mr. Groff's advice is undoubtedly sound. Plant from two inches deep for small bulbs to four or even six inches for large bulbs. The best ground is that which is not very heavy and which has good drainage. Hoe frequently and, if convenient, water in dry times, soaking the ground thoroughly once a week, rather than sprinkling frequently. In the fall before hard freezing, take up the bulbs, remove the tops, old bulbs and roots, and place the bulbs in boxes or baskets, two or three inches deep and keep them in a frost-proof cellar till spring.

For prices see page 20.



ORDER SHEET

Spring of 1901

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M. CRAWFORD COMPANY  
Cuyahoga Falls, Ohio.

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Name, .....  
VERY PLAIN.

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County,..... State,.....

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6 Plants or Bulbs of one variety at Dozen Rates.  
50 " " " " Hundred Rates.  
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250 each of two or more varieties at Thousand Rates.

No.	VARIETY.	By Mail, postpaid.			By Express, not prepaid				PRICE.	
		12	25	100	12	25	100	1000		
.....	August Luther, (P) .....	.20	.30	.80	.15	.20	.50	4.00	.....	.....
.....	Bennett, (I) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....
.....	Beverly, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Bismarck, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Brandywine, (S.C.) .....	.20	.30	.80	.15	.20	.50	3.50	.....	.....
.....	Bubach, (I) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Downing's Bride, (I) .....	.20	.30	.80	.15	.20	.50	3.00	.....	.....
.....	Emperor (P).....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....
.....	Empress (P) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....
.....	Gandy, (P).....	.20	.30	.80	.15	.20	.50	3.00	.....	.....
.....	Gibson, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Glen Mary, (P) .....	.20	.30	.80	.15	.20	.50	4.00	.....	.....
.....	Hunn, (I) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Joe, (P) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....
.....	Johnson's Early, (P).....	.20	.30	.80	.15	.20	.50	3.00	.....	.....
.....	Kansas, (I) .....	.50	.75	2.00	.45	.65	1.70	.....	.....	.....
.....	Klondike, (P) .....	.20	.30	.80	.15	.20	.50	3.50	.....	.....
.....	Lloyd, (I) .....	.20	.30	.80	.15	.20	.50	3.50	.....	.....
.....	McKinley, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Margaret, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....
.....	Marshall, (P) .....	.20	.30	.80	.15	.20	.50	4.00	.....	.....
.....	Mayflower, (P).....	.20	.30	.80	.15	.20	.50	3.00	.....	.....

Amount Carried Forward, - - .....

No.	VARIETY.	Amount brought forward, -								PRICE.	
		By Mail, postpaid			By Express, not prepaid						
		12	25	100	12	25	100	1000			
.....	Miller, (P).....	2.00			2.00						
.....	Nettie, (I).....	.30	.45	1.50	.25	.40	1.20				
.....	New York, (P).....	.20	.30	.80	.15	.20	.50				
.....	Nick Ohmer, (P).....	.20	.30	.80	.15	.20	.50	3.50			
.....	Parker Earle, (P) .....	.20	.30	.80	.15	.20	.50				
.....	Parsons' Beauty, (P)...	.20	.30	.80	.15	.20	.50	3.50			
.....	Pennell, (P) .....	.30	.45	1.50	.25	.40	1.20				
.....	Robbie, (P) .....	.30	.45	1.50	.25	.40	1.20				
.....	Ruby, (P) .....	.20	.30	.80	.15	.20	.50				
.....	Sample, (I) .....	.20	.30	.80	.15	.20	.50	3.50			
.....	Senator Dunlap, (P)...	.30	.45	1.50	.25	.40	1.20	6.00			
.....	Sunshine, (I) .....	.30	.45	1.50	.25	.40	1.20				
.....	Warfield, (I) .....	.20	.30	.80	.15	.20	.50	3.00			
.....	Wm. Belt, (P).....	.20	.30	.80	.15	.20	.50	4.00			
.....	W. J. Bryan, (P) .....	.30	.45	1.50	.25	.40	1.20				
.....	Woolverton, (P) .....	.20	.30	.80	.15	.20	.50				

**SPECIAL OFFER, No. 1—25 Mayflower, 25 Warfield, 25 Sample  
25 Senator Dunlap, 25 Klondike: by Mail, \$1.00, by Exp., 75c.**

**SPECIAL OFFER, No. 2—25 August Luther, 25 Downing's  
Bride, 25 Nick Ohmer, 25 Senator Dunlap, 25 Gandy: by mail,  
\$1.00. By Express, 75c.**

### BULBS.

No.	VARIETY.	By Mail, postpaid			By Express, not prepaid				PRICE.	
		12	25	100	12	25	100	1000		
.....	Groff's Hybrids, No. 1	.65	1.00	3.50	.50	.75	2.50	20.00		
.....	" " " 2	.50	.70	2.50	.40	.60	2.00	15.00		
.....	" " " 3	.40	.60	2.00	.30	.45	1.50	12.00		
.....	Standard Mix., No. 2	.20	.30	1.10	.15	.20	.75	5.00		
.....	" " " 3	.15	.20	.65	.10	.15	.50	3.50		

**Total Amount of Order, -**

*Less Discount, (See page 4).....*





No.	VARIETY.	Amount brought forward, -								PRICE.	
		By Mail, postpaid			By Express, not prepaid						
		12	25	100	12	25	100	1000			
.....	Miller, (P).....	2.00	.....	.....	2.00	.....	.....	.....	.....	.....	
.....	Nettie, (I).....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....	
.....	New York, (P).....	.20	.30	.80	.15	.20	.50	.....	.....	.....	
.....	Nick Ohmer, (P).....	.20	.30	.80	.15	.20	.50	3.50	.....	.....	
.....	Parker Earle, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....	
.....	Parsons' Beauty, (P)...	.20	.30	.80	.15	.20	.50	3.50	.....	.....	
.....	Pennell, (P) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....	
.....	Robbie, (P) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....	
.....	Ruby, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....	
.....	Sample, (I) .....	.20	.30	.80	.15	.20	.50	3.50	.....	.....	
.....	Senator Dunlap, (P)...	.30	.45	1.50	.25	.40	1.20	6.00	.....	.....	
.....	Sunshine, (I) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....	
.....	Warfield, (I) .....	.20	.30	.80	.15	.20	.50	3.00	.....	.....	
.....	Wm. Belt, (P) .....	.20	.30	.80	.15	.20	.50	4.00	.....	.....	
.....	W. J. Bryan, (P) .....	.30	.45	1.50	.25	.40	1.20	.....	.....	.....	
.....	Woolverton, (P) .....	.20	.30	.80	.15	.20	.50	.....	.....	.....	

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### BULBS.

No.	VARIETY.	By Mail, postpaid			By Express, not prepaid				PRICE.	
		12	25	100	12	25	100	1000		
.....	Groff's Hybrids, No. 1	.65	1.00	3.50	.50	.75	2.50	20.00	.....	.....
.....	" " " 2	.50	.70	2.50	.40	.60	2.00	15.00	.....	.....
.....	" " " 3	.40	.60	2.00	.30	.45	1.50	12.00	.....	.....
.....	Standard Mix., No. 2	.20	.30	1.10	.15	.20	.75	5.00	.....	.....
.....	" " " 3	.15	.20	.65	.10	.15	.50	3.50	.....	.....

**Total Amount of Order, -**

*Less Discount, (See page 4).....*



## The Mersereau Blackberry.

We have on hand several thousand large, well-grown, root-cutting plants as well as a very large number of root-cuttings of the Mersereau blackberry, on which we shall be pleased to quote low prices where one wants a large number.

This variety was originated in western New York, where the mercury falls below zero each winter. It has been well tested and found to be perfectly hardy. It makes very large canes, is very productive, of large size, delicious quality, hangs on the bushes till fully ripe, does not turn red in the baskets, has an unusually long season.

Prof. L. H. Bailey says, "It is one of the most promising varieties I know."

R. M. Kellogg, President of the Michigan State Horticultural Society, says, "It is beyond all question the king of blackberries for commercial purposes."

### ✿ TESTIMONIALS ✿

The strawberry plants arrived all safely and in splendid condition. They are the finest plants I ever received from anybody. They are as green and fresh as when you dug them, not one will die under my care. I was astonished at the roots, some were eight inches long. I thank you for the liberal count.—A. C. DENHAM.

PULASKI COUNTY, KY.

I received the strawberries; what I planted all grew; a few I gave my son to help him raise a few plants, I don't know about. Perfection has surely been reached in packing and handling plants by M. Crawford Co.—ROBT. P. LANCHESTER.

LINCOLN COUNTY, IDAHO.

The strawberry plants came in perfect condition and are the finest I ever received.—S. W. MYERS.

KANE COUNTY, ILL.

The strawberry plants I ordered of you some time ago, came all O. K.—S. M. KING.

CHAVES CO., N. MEX., Sept. 7.

The strawberry plants arrived in fine shape. Were surprised at your liberality. The plants were the finest I ever bought and are growing nicely. Please accept my thanks.—FREDERICK J. WARNOCK.

LAWRENCE COUNTY, PENNA.

Plants came through all right. Accept thanks for your very liberal count.—J. R. HILLIER.

SALT LAKE CITY, UTAH, May 20.

The plants I got of you last spring I set out on a piece of muck ground. I never saw such plants before. They are beautiful. I set them nearly five feet apart and now there is hardly room for the runners.

YARMOUTH CO., NOVA SCOTIA, August 10.

CHARLES W. SMITH.

The strawberry plants were received. They are the best we have ever bought, and have grown nicely in spite of the dry weather. Many thanks for the extras and for the gladiolus bulbs.

POLK COUNTY, IOWA, May 16.

CLARA S. RICE.

I received berry plants all right. Thanks for your liberality in count and fine plants.

RUSH COUNTY, IND.

M. R. LITTLE.

The strawberry plants ordered from you came in first-class shape, as usual in your case. Thanks for your promptness.

ROCKINGHAM CO., N. H., June 1, 1900.

HORACE EATON.

The small order of strawberry plants from you arrived in due time from shipment. They were a superb lot of plants, and, although put out at the beginning of the dry time, every plant lived.

BOURBON COUNTY, KY.

GEO. H. MORROW.

The plants came through in excellent condition, as they always do with your perfect packing. Thanks for the very liberal count and extras.

JOHNSON COUNTY, IOWA.

H. S. JOHNSON.

Plants arrived safely and in good condition. Much pleased with their strong and healthy appearance. Every plant seems to be first-class in every respect.

JACKSON COUNTY, MO.

W. H. PEAK.

## BRIEF DIRECTIONS FOR GROWING STRAWBERRIES

Have the land rich.

Plow the land in the fall and then work only a few inches of the surface in the spring; or plow in the spring and make the ground solid by rolling or the tramping of horses. One secret of success is to have "solid bottom," no large cavities nor very loose soil.

Set plants as early in the spring as possible. Set with the crowns level with the surface of the ground, and press the earth firmly about the roots.

If you propose to follow hill culture set plants 30 x 15 inches to cultivate one way, or 30 x 30 to cultivate both ways. For "hedge rows" set 30 or 36 x 20 or 30, cultivate one way and string first runners along the rows so as to make a single row of plants six or eight inches apart, and cut off all runners thereafter. For "matted rows" plant  $3\frac{1}{2}$  to 4 feet x 2 to 4 feet. Marshall should be set  $3\frac{1}{2}$  x 2, Senator Dunlap 4 x 4.

Cut off blossoms from spring-set plants the first year. Runners that are to be cut should be cut as soon as they appear—not after they have sapped the plant to make useless growth.

Keep the surface of the ground continually stirred—not so much to kill weeds as to conserve moisture. Cultivate after every shower and once in five or six days during drouth.

Cover the ground between the plants with straw, litter or manure in October. Cover the plants themselves as soon as hard freezing begins. Remove the mulch from over the plants when growth commences in the spring.

Keep down weeds in the spring by very shallow cultivation or pulling by hand, and conserve moisture by mulch among the plants.

When a grower discovers an insect pest and wants information about it, the best way is to send specimens and full written particulars to the entomologist of the experiment station of his own state.

Tests at the Georgia Experiment station have shown that the yield of strawberries in hill culture was only about one half that in matted rows. The 18-inch rows yielded 134½ quarts more per acre than 12-inch rows; and 24-inch rows yielded 282 quarts more per acre than 18-inch rows; but it is believed that 18-inch rows are the best as the spaces between 24-inch rows are too narrow. The original rows were set four feet apart.